Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of post-transcriptionally repressing, delaying or otherwise reducing the expression of a target gene in an animal cell, tissue or organ, said method comprising:

introducing to said animal cell, tissue or organ one or more dispersed or foreign deoxyribonucleotide ~~nucleic acid~~ molecules ~~comprising:~~,

wherein said one or more deoxyribonucleotide molecules includes ~~tandem copies of a nucleotide sequence, identical to or complementary to the nucleotide sequence of said~~ at least two copies of a structural gene sequence, that are substantially identical to the nucleotide sequence of a target gene or a region thereof,

wherein at least one said copy of the structural gene sequence is the sense orientation, at least one other copy of said gene sequence is in the antisense orientation, and

wherein said one or more deoxyribonucleotide molecules are ~~nucleic acid is~~ introduced for a time and under conditions sufficient to post-transcriptionally repress, delay, or otherwise reduce the expression of the target gene in the animal cell, tissue, or organ ~~for translation of the mRNA product of said target gene to be modified, subject to the proviso that the transcription of said mRNA product is not exclusively repressed or reduced~~.

2. (Currently Amended) The method according to claim 1 wherein said at least two copies of a structural gene sequence comprise ~~said~~ tandem copies of a nucleotide sequence. ~~comprise inverted repeats of the target gene sequence or a region thereof or complementary thereto.~~

3. (Currently Amended) The method according to claim 1 wherein said at least one copy of the structural gene sequence is identical to the sequence of said target gene or a region

thereof. ~~said tandem copies comprise direct repeats of the target gene sequence or a region thereof or complementary thereto~~.

4. (Currently Amended) The method according to claim 1 wherein said copy in the sense orientation is the inverted repeat of said copy in the antisense orientation~~said tandem copies comprise both direct and inverted repeat of the target gene sequence or a region thereof or complementary thereto~~.

5. (Currently Amended) The method according to claim 2~~1~~, wherein the number of tandem copies is two.

6. (Currently Amended) The method according to claim 2~~1~~, wherein the number of tandem copies is three.

7. (Currently Amended) The method according to claim 2~~1~~, wherein the number of tandem copies is four.

8. (Currently Amended) The method according to claim 2~~1~~, wherein the number of tandem copies is six.

9. (Currently Amended) The method according to claim 2~~1~~, wherein the number of tandem copies is ten.

10. (Currently Amended) The method according to claim 1 wherein said at least two copies of said structural gene sequence are ~~one or more of the repeated units of said tandem repeats is~~ separated ~~from another unit~~ by a nucleic acid-containing stuffer fragment.

11. (Original) The method according to claim 1 wherein the animal is a mouse.

12. (Currently Amended) The method according to claim 1, wherein the target gene is an endogenous gene ~~which is contained within the genome~~ of the animal cell, tissue or organ.

13. (Original) The method according to claim 12 wherein the target gene is α-1,3-galactosyltransferase.

14. (Withdrawn) The method according to claim 1, wherein the target gene is derived from the genome of a pathogen of the animal cell, tissue or organ or an organism comprising said cell, tissue or organ.

15. (Withdrawn) The method according to claim 14 wherein the pathogen is a virus.

16. (Withdrawn) The method according to claim 15 wherein the virus is BEV.

17. (Currently Amended) The method according to claim 1 further comprising selecting the dispersed or foreign deoxyribonucleotide molecules ~~nucleic acid molecule(s)~~ according to their ability to effectively post-transcriptionally repress, delay or reduce expression of the target gene.

18. (Currently Amended) A method of post-transcriptionally repressing, delaying or otherwise reducing the expression of a target gene in an animal cell, tissue or organ, said method comprising:

selecting one or more dispersed or foreign deoxyribonucleotide ~~nucleic acid~~ molecules having ~~tandem repeats of a nucleotide sequence which is substantially identical to or complementary to the nucleotide sequence of said target gene or a region thereof;~~ at least two copies of a structural gene sequence which are substantially identical to the nucleotide sequence of a target gene or a region thereof,

wherein at least one said copy of said structural gene sequence is in the sense orientation and one other copy of said structural gene sequence is in the antisense orientation;

producing a synthetic gene comprising said dispersed or foreign deoxyribonucleotide molecules ~~nucleic acid molecules~~ operably linked to a promoter sequence;

introducing said synthetic gene to said cell, tissue or organ; and

expressing said synthetic gene in said cell, tissue or organ for a time and under conditions sufficient to post-transcriptionally repress, delay, or otherwise reduce the expression of the target gene in the animal cell, tissue, or organ ~~for translation of the mRNA product of said target gene, subject to the proviso that the transcription of said mRNA product is not exclusively repressed or reduced~~.

19. (Withdrawn) A method of conferring resistance or immunity to a viral pathogen upon an animal cell, tissue, organ or whole organism, comprising:
introducing one or more dispersed or foreign nucleic acid molecules comprising: tandem repeats of a nucleotide sequence derived from the viral pathogen or a complementary sequence thereto for a time and under conditions sufficient for translation of the mRNA product of a virus gene to be delayed or otherwise reduced, subject to the proviso that the transcription of said mRNA product is not exclusively repressed or reduced.

20. (Withdrawn) The method according to claim 19 wherein the virus is an animal pathogen.

21. (Withdrawn) The method according to claim 20 wherein the virus is BEV.

22. (Withdrawn) The method according to claim 19, further comprising selecting the dispersed or foreign nucleic acid molecule(s) according to their ability to confer resistance or immunity on the animal cell, tissue, organ or organism.

23. (Withdrawn) A method of conferring resistance or immunity to a viral pathogen upon an animal cell, tissue, organ or whole organism, comprising:
selecting one or more dispersed or foreign nucleic acid molecules comprising tandem repeats of a nucleotide sequence derived from the viral pathogen or a complementary sequence thereto;
producing a synthetic gene comprising said dispersed or foreign nucleic acid molecules operably linked to a promoter sequence;
introducing said synthetic gene to said cell, tissue, organ or whole organism; and

expressing said synthetic gene in said cell, tissue or organ for a time and under conditions sufficient for translation of the mRNA product of a gene of the virus to be modified, subject to the proviso that the transcription of said mRNA product is not exclusively repressed or reduced.

24. (Withdrawn) The method according to claim 19, wherein the dispersed or foreign nucleic acid molecules comprise tandem copies of nucleotide sequence encoding a viral protein selected form the group consisting of: a replicase, a polymerase, a coat protein and an uncoating gene.

25. (Withdrawn) The method according to claim 24, wherein the viral protein is a viral polymerase.

26. (Withdrawn) The method according to claim 25, wherein the viral protein is a viral coat protein.

27. (Currently Amended) A synthetic gene comprising: a dispersed or foreign deoxyribonucleotide ~~nucleic acid~~ molecule ~~comprising tandem copies of a nucleotide sequence~~ including at least two copies of a structural gene sequence which are ~~is~~ substantially identical to the nucleotide sequence of said target gene or region thereof, ~~or a derivative thereof or a complementary sequence thereto placed operably under the control of a promoter sequence~~

wherein at least one said copy of said structural gene sequence is in the sense orientation at least one other said copy of said structural gene sequence is in the antisense orientation; and

wherein the synthetic gene is capable of post-transcriptionally repressing, delaying, or otherwise reducing expression of said target gene when expressed in an animal, tissue, or organ.

28. (Currently Amended) The synthetic gene according to claim 27, wherein ~~the dispersed or foreign deoxyribonucleotide nucleic acid molecule comprises tandem inverted and/or direct repeats of a genetic sequence that~~ the target gene is endogenous to the genome of the animal cell, tissue, organ or organism ~~or which is derived from a non-endogenous gene of the animal cell, tissue, organ or organism~~.

29. (Withdrawn) The synthetic gene according to claim 28, wherein the nonendogenous gene is from a viral pathogen of the animal cell, tissue, organ or organism.

30. (Withdrawn) The synthetic gene according to claim 29, wherein the nonendogenous gene is from an animal virus.

31. (Withdrawn) The synthetic gene according to claim 30 wherein the animal virus is BEV.

32. (Withdrawn) The synthetic gene according to claim 30, wherein the nonendogenous gene is the BEV polymerase gene.

33. (Withdrawn) The synthetic gene according to claim 32 wherein the promoter is the CMV-IE promoter or SV40 promoter sequence.

34. (Currently Amended) The synthetic gene according to claim 27 wherein the target gene is ~~dispersed or foreign nucleic acid molecule comprises tandem inverted and/or direct repeats of the~~ porcine α-1,3-galactosyltransferase gene.

35. (Currently Amended) The synthetic gene according to claim 3424, wherein the at least two copies of the structural gene sequence are placed operably under the control of a single promoter sequence~~porcine α-1,3-galactosyltransferase gene is operably linked to the CMV promoter sequence~~.

36. (Currently Amended) The synthetic gene according to claim 27, wherein each said copy of the structural gene sequence is separately and ~~the each tandem copies of the nucleotide sequence of the target gene are~~ operably linked to ~~two or more~~ a separate promoter sequences.

37. (Currently Amended) The synthetic gene according to claim 36, wherein each said copy of the structural gene sequence is ~~of the tandem copies of the nucleotide sequence of the target gene are~~ operably linked to spatially separate promoter sequences.

38. (Previously Amended) A genetic construct comprising the synthetic gene according to claim 27.

39. (Withdrawn) The genetic construct according to claim 38 selected from the group consisting of: plasmid pCMV.BEVx2; plasmid pCMV.BEV.GFP.VEB; plasmid pCMV.BEV.SV40L.BEV; and plasmid pCMV.BEV.SV40L.VEB.

40. (Currently Amended) The genetic construct according to claim 38 comprising plasmid pCMV.Galtx2~~; and~~ or pCMV.Galtx4.

Claims 41-42 (Canceled)

43. (Currently Amended) An animal cell, tissue, organ or ~~whole organism~~ non-human animal comprising the synthetic gene according to claim 27.

44. (Withdrawn) The method according to claim 19, wherein the dispersed or foreign nucleic acid molecules comprise tandem copies of nucleotide sequence encoding a viral protein selected form the group consisting of: a replicase, a polymerase, a coat protein and an uncoating gene.

45. (Withdrawn) The method according to claim 24, wherein the viral protein is a viral polymerase.

46. (Withdrawn) The method according to claim 25, wherein the viral protein is a viral coat protein.

47. (Currently Amended) An animal cell, tissue, organ or ~~whole organism~~ non-human animal comprising the genetic construct according to claim 38.

48. (New) The synthetic gene according to claim 35, wherein the promoter sequence is the CMV promoter sequence.